REMARKS

In the Office Action dated March 22, 2006, claims 1-19 were presented for examination. Claims 1-19 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Claims 1-19 were rejected under 35 U.S.C. §102(b) as being anticipated by *Lindsay et al.*, U.S. Patent No. 6,105,020.

Applicant wishes to thank the Examiner for the careful and thorough review and action on the merits in this application.

I. Rejection of Claims 1-19 under 35 U.S.C. §101

In the Office Action dated March 22, 2006, the Examiner rejected claims 1-19 under 35 U.S.C. §101 indicating the claims are directed to non-statutory subject matter. More specifically, the Examiner has indicated that the language of claim 1, and claims 2-6 through the dependency on claim 1, as being directed to an abstract idea. "when such a rejection is made, Office personnel must expressly state how the language of the claims has been interpreted to support the rejection." MPEP §2106A. It is unclear from the brief language provided by the Examiner as to where the deficiencies in the claims lie. Applicant has amended claim 1 to further claim how the logical node is employed in the push down process associated with execution of a query on a relational database.

The Examiner has further indicated that the language of claim 7, and claims 8-12 through the dependency on claim 7, as being directed to software and having no tangible result. Applicant's claim 7 is directed to a computer system having a database and more specifically, the structure of the database tables. Finally, the Examiner raised an issue with the language "signal bearing medium" in claim 13 and "modulated carrier signal" in claim 14. The Applicant has

amended claim 13 to remove the language "signal bearing medium", and has amended claim 14 to remove the language "modulated carrier signal". The amendments to claims 1, 7, and 13 each claim how the creation of the logical node is employed to create efficiency in a push down process of dimension tables in response to execution of a query plan. The structure of these claims is not an abstract idea, but rather is a concrete and tangible form that accomplishes a practical application. Accordingly, Applicant respectfully requests that the Examiner remove the rejection of claims 1-19 under 35 U.S.C. §101.

II. Rejection of Claims 1-19 under 35 U.S.C. §102(b)

In the Office Action dated March 22, 2006, the Examiner rejected claims 1-19 under 35 U.S.C. §102(b) as being anticipated by *Lindsay et al.*

The *Lindsay et al.* patent teaches a relational database with a fact table and one or more dimension tables. In one embodiment, the dimension tables may take the form of a snow flake configuration. The purpose in this patent is to identify the minimal set of tables necessary to execute a star join operation. See Abstract. The details for determining the minimal set of tables that constitute each snowflake is shown in detail in Figs. 5 and 6. See Col. 6, lines 22-24. As shown, the purpose is to determine the minimal set of tables in each snowflake. As shown in Fig. 6, it has been determined that Table D does not provide adequate filtering, and as such subnode D is discarded from the query plan. See Col. 8, lines 14-16. Accordingly, *Lindsay et al.* does not include each of the dimension tables rooted at a first level child dimension table into the logical node.

Applicant's invention takes advantage of a database with a fact table and multiple child dimension tables in a snow flake table schema and logically converts it into a star table schema with all of the child dimension tables in the query incorporated therein. Each first generation child dimension table is joined with all subsequent generation child dimension tables emanating

therefrom into a single logical node. There is no filtering of the child dimension tables within the logical node to determine a minimal number of tables therein. *Lindsay et al.* does not disclose a first generation child dimension table and all of the related child dimension tables being logically joined together as a single logical node for push down to the fact table during execution of the query plan, as claimed by Applicant. Rather, *Lindsay et al.* discloses a database with a fact table and multiple dimension tables with filters to determine a minimal number of dimension tables to be joined into the query. Accordingly, Applicant's claimed invention creates a logical node that functions on the invention principle of including all related dimension tables in a query plan instead of removing one or more of the related dimension tables from the logical node prior to execution of the query plan.

Reconsideration is requested of the rejection of claims 1-19 as anticipated by *Lindsay et al.* *Lindsay et al.* does not disclose a first generation level child dimension table and all of the child dimension table(s) related to the first generation level to be logically joined together for push down to an associated fact table. Rather, *Lindsay et al.* discloses a database with a fact table and dimension table wherein filters are applied to determine a minimum number of related child dimension tables that are necessary to be joined to an associated fact table for completion of an associated query. As described in Applicant's specification, the claimed arrangement of child dimension tables into a logical node enables a snow flake schema to be converted to a star schema. This provides certain advantages of push down to the fact table for execution of a query, as described in the specification.

III. Conclusion

Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. Accordingly, Applicant requests that the Examiner indicate allowability of claims 1-19, and that the application pass to issue. If the Examiner believes, for any reason, that personal communication will expedite prosecution of the application, the Examiner is hereby invited to telephone the undersigned at the number provided.

For the reasons outlined above, withdrawal of the rejection of record and an allowance of this application are respectfully requested.

Respectfully submitted,

By: /Rochelle Lieberman /
Registration No. 39,276
Attorney for Applicant

Lieberman & Brandsdorfer, LLC
802 Still Creek Lane
Gaithersburg, MD 20878
Phone: (301) 948-7775
Fax: (301) 948-7774
Email: rocky@legalplanner.com

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